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THE ROLE OF NESIRITIDE ON RENAL FUNCTION IN PATIENTS WITH DECOMPENSATED HEART FAILURE AND PRESERVED LEFT VENTRICULAR FUNCTION

ACC Poster Contributions
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Background: Patients with acute diastolic heart failure (ADHF) exacerbation often have deterioration of renal function secondary to use of diuretics. The aim of this study was to examine for the first time the effect of nesiritide on renal function at three days, day of discharge and one month after infusion of nesiritide in patients with ADHF.

Methods: 658 patients admitted at AECOM with ADHF and normal left ventricular ejection fraction were selected retrospectively. 328 patients were treated with intravenous nesiritide and furosemide and 330 patients received only furosemide (controls). Serum creatinine and GFR levels at baseline, 3 days, time of discharge and one month after therapy were assessed respectively for both groups.

Results: In the nesiritide group, there was a significant mean GFR decrease at day 3 and day of discharge ($p<0.001$) but the GFR remained stable ($p=0.330$) at 1 month post nesiritide infusion (fig 1). However, in the control group there was a significant deterioration of kidney function at all time points including 1 month (fig1). There was a significant difference between nesiritide and control group in the mean change of GFR at 1 month after (1.00 ± 18.75 vs -3.17 ± 14.29, $p<0.001$) respectively. Similar results were noted with creatinine data (fig1).

Conclusions: Nesiritide seems to have a protective renal effect in patients admitted with decompensated diastolic HF at one month post nesiritide administration despite an initial significant deterioration of renal function.